

Translation

PATENT COOPERATION TREATY

PCT/JP2002/005666



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference IMF0201PCT	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2002/005666	International filing date (day/month/year) 07 June 2002 (07.06.2002)	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC G02B 6/38		
Applicant MIYAKE, Mikio		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 6 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
- This report contains indications relating to the following items:

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input checked="" type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

Date of submission of the demand 07 January 2004 (07.01.2004)	Date of completion of this report 12 May 2004 (12.05.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:

- ☐ international search (under Rules 12.3 and 23.1(b))
☐ publication of the international application (under Rule 12.4)
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☒ The international application as originally filed/furnished

☐ the description:

pages _____, as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☐ the claims:

pages _____, as originally filed/furnished

pages* _____, as amended (together with any statement) under Article 19

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☐ the drawings:

pages _____, as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application.

☒ claims Nos. 12-19

because:

☐ the said international application, or the said claims Nos. _____
relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 12-19.

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the
Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with
the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ see Supplemental Box for further details.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	3, 4, 6, 8, 10, 11	YES
	Claims	1, 2, 5, 7, 9	NO
Inventive step (IS)	Claims		YES
	Claims	1-11	NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

2. Citations and explanations

Document 1: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 53783/1986 (Laid-open No. 164304/1987), (Japan National Oil Corp.), 19 October 1987, page 4, line 15 to page 5, line 9 and fig. 1

Document 2: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 80750/1981 (Laid-open No. 192511/1982), (Omron Tateishi Electronics Co.), 01 June 1982, page 4, line 10 to page 6, line 19 and drawings

Document 3: JP 2002-156551 A (Kyocera Corp.), 31 May 2002, paragraph [0030]

Document 4: EP 1134603 A1 (Nippon Ferrule Co., Ltd.), 19 September 2001, page 13, right column, lines 35-42

Document 5: JP 5-164941 A (Emitto Seiko Kabushiki Kaisha), 29 June 1993, paragraphs [0012] to [0013] and fig. 1-2

Claims 1, 2 and 5

Documents 1 and 2 disclose features wherein the male-type protruding end part of a first ferrule is

brought into contact with the female-type recessed end part of a second ferrule, the ring-shaped stepped part at the base of the male-type protruding end part and the ring-shaped stepped part at the base of the female-type recessed end part are contiguous, and the first ferrule and the second ferrule are configured from a metal. Consequently, the inventions that are set forth in claims 1, 2 and 5 lack novelty in the light of document 1 or 2 cited in the international search report.

Claims 3 and 4

The inventions that are disclosed in documents 1 and 2 comprise male-type protruding end parts and female-type recessed end parts that have a conical shape with a truncated tip; therefore, it would be easy for a person skilled in the art to conceive of configuring so that the ferrules have a conical shape instead of a conical shape with a truncated tip. In addition, configuring so that the depression angle of the cone has a gradient between 20-80° is merely a simple design matter.

Claim 6

The feature of configuring the ferrules from a nickel alloy is disclosed in document 3.

Claim 7

The feature of configuring the ferrules from stainless steel is disclosed in document 1.

Claims 8 and 10

The feature of manufacturing the ferrules via an electrocasting method is disclosed in document 4.

Claims 9 and 11

The feature of providing a protective sleeve and

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equipping the protective sleeve with a plurality of protruding parts for supporting the outer peripheral surfaces of the ferrules that are used with optical fibers is disclosed in document 5.